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Educational Writings

I. COMMENT ON CURRENT PUBLICATIONS

A handbook to help superintendents conduct surveys of their own school systems.—School surveys during the past seven years have been of two distinctly different kinds: one, and that most common up to the present time, is the occasional or intermittent survey, conducted by groups of specialists brought in from the outside to overhaul all aspects of school administration in the city; the other is the co-called inside, continuous survey, conducted by the superintendent and his administrative assistants and carried on year by year in the local system. Superintendent Bliss's new book on school surveys¹ is designed as an outline for conducting "inside, continuous" surveys by superintendents. It is the result of a number of years of experience in just such school surveying. Illustrations are drawn from specific towns and cities, largely from those situated in the eastern portion of the country.

The author suggests that the survey begin with a study of general conditions in the community, of the general plan of school organization, and with a comparison of local conditions in such matters as pupil enrollment, school attendance, etc., with conditions in these matters in other cities.

Introductory matter on these topics is to be followed by a discussion of the method of organizing and administering school business through the board of education, relevant facts concerning the teaching staff, number of pupils per supervisor, per teacher, ratio of supervisors to teachers, professional preparation, and experience of the teaching staff. As an aid to the study of salaries a salary schedule indicating grades of schools and minimum and maximum levels is reported for a list of thirty-three cities. Comparative tables are also given for average salaries of elementary and secondary school teachers. The next topic suggested is a statistical analysis of "the pupils." Here the author gives age-grade distribution tables, tables of children of school-census age, of enrollment and average daily attendance, and tables showing degree of retardation and acceleration in the public system. Non-promotion tables and failure tables showing percentages of failures by subjects and average size of class round out this material.

¹ D. C. BLISS, *Methods and Standards for Local School Surveys*. Boston: D. C. Heath & Co., 1918. Pp. xxiv+264. \$1.50.

It is further suggested that efficiency of instruction be measured by means of standardized tests. Five subjects are discussed with the aid of illustrations, namely, hand-writing, spelling, arithmetic, composition, and reading. The author gives a list of sixteen definite rules of procedure to be followed in conducting standardized tests. Standard scores quoted from a variety of places for each of these five subjects provide the persons making a survey with certain suggestive forms.

Chapter VIII on the course of study is a suggestion for studies of time allotments by grades. It quotes the percentage of time devoted to each subject in the curriculum as reported by Holmes in the Fourteenth Yearbook. The chapter on school buildings quotes Strayer's score card and gives the results secured by five scorers who applied the Strayer scale in ten buildings. This chapter also includes some cost data for elementary and secondary schools.

Chapter XII is on school finance. It omits many important features ordinarily covered in school surveys of city school finance and might profitably have been amplified. Chapters XIV and XV summarize briefly for the administrator specific devices and graphical methods of representing data.

The book is uncritical in its use of statistical terminology and loose in its use of scientific educational terminology throughout. This fault might have been avoided to the very great advantage of the movement which it aims to promote. There is no reason why educational terminology should not be at once clear and simple, but it must include some definite technical terms which readers of this type of book should master. On the whole, the book is a very helpful compilation of selected administrative devices for school surveying. The suggestions are the stronger because they have the support of various administrators and because they are set down by a school superintendent who has used them extensively and has found that they improve his practice. No superintendent has been a more ardent advocate of scientific methods in school administration than has Superintendent Bliss.

A new text-book on the teaching of arithmetic in the elementary school.—A contribution to the improvement of the teaching of arithmetic has been made in Professor Stone's new book¹. It is written for teachers and supervisors and for those preparing to teach arithmetic in the elementary schools. It is intended especially to be a text-book for normal schools and teachers' reading circles. It gives the aims and purposes of efficient teaching in arithmetic, especially in the primary grades. It takes advantage of modern

¹ J. C. STONE, *The Teaching of Arithmetic*. Chicago: Benj. H. Sanborn & Co. Pp. v+262.

scientific studies of arithmetic. For example, it indicates what topics ought to be eliminated in the light of the findings of recent investigations. It takes advantage of the scientific work of Courtis, C. W. Stone, and others. It also exhibits a thorough grasp of present-day psychology. It makes very clear such issues as those raised by the caption, "Is Habituation Prior to Rationalization Desirable?" It answers this question in the affirmative for the elementary school. Good insight is displayed in the discussions and applications in the psychology of problem-solving. The author's constant reiteration of the statement that we must train the children in the habit of "seeing relations" is an illustration of his psychological analysis and insight. The style of the book is clear and direct. It is not characterized by the academic terminology that many of our modern pedagogical writings employ. It is written for the teacher of limited training. In addition to stating general principles, it also tells very specifically what to do. It gives detailed, concrete suggestions as to method, especially for the primary grades.

A text-book and manual for teachers of science in the elementary school.—We recently reviewed in this department a general book on the principles of science teaching by Professor Twiss. That book was written, however, for the high school. Paralleling it for the elementary school we now have Professor Trafton's text-book¹.

This book organizes material of elementary science under four large headings: *biological* (including the study of wild plants and animals); *agricultural* (emphasizing gardening and including the study of closely allied topics, such as weeds and soils); *physical* (which includes the elementary phases of physics, chemistry, and astronomy); and *hygienic* (which includes the teaching of personal hygiene and public sanitation). These four branches of science are followed through the first half of the book in general descriptive fashion and are assigned to their places in the school; the biological phase receiving special attention in the lower grades, the agricultural in the intermediate and grammar, the physical receiving most attention in the grammar, and hygiene beginning with the primary grades and increasing in importance in the later grades.

The book is divided into two distinct parts. The first part, including two hundred pages, is introduced by general chapters, such as chapters on the content and place of science, the aims that are prevalent in teaching science to elementary-school children, the method of putting real motive into the teaching of science, and the prevalent methods of teaching science illus-

¹G. H. TRAFTON, *The Teaching of Science in the Elementary School*. Boston: Houghton, Mifflin Co. Pp. x+293. \$1.50.

trated by simple lessons. These preliminary chapters are followed by sections on the teaching of each of the four branches of science named above. The chapters include suggestions on teaching about birds, insects, pets, and domesticated animals. Lessons are outlined on trees, seed-dispersal, and flowerless plants, on gardening, on weeds, hygiene, elementary physics and chemistry, and on water and the sky. In each chapter outlining lessons the author condenses general descriptive and handbook material into very brief space. The discussion is written in elementary form and is adapted to the use of elementary-school teachers.

The second, main part of the book consists of an *outline of science instruction*, organized by grades from the first grade to the eighth, inclusive. Specific problems are discussed and outlined according to grades and seasons, and the order of arrangement of topics is made so definite that the new teacher can follow it or modify it as her experience leads her to make changes in the organization. The bibliography is arranged according to the subject discussed and is complete. It might have been made more useful if it had been annotated.

A text-book in the scientific study of child life.—The literature of child study has been represented by two distinctly different kinds of books. First, there have been those which contributed little in the way of general scientific or objective material, but were made up largely of collections of empirical judgment or of individual experience. Secondly and more recently, the educational psychologist has been rendering a distinct service to the improvement of the teaching of children by developing a more exact type of child study which is based throughout on scientifically determined facts regarding child development. Professor Waddle's volume¹ may be classed as a book of the latter type, although the first half is a restatement of general principles such as have appeared in a dozen or more books by Bagley, Ruediger, Bolton, O'Shea, and others.

The book begins by summarizing the anthropological literature on the place of the child in history. An enumeration of the kinds of individual and objective studies which have been reported on the child is given next. A helpful summary is supplied of the methods by which investigators have studied the child mind. The biological foundation for the study of child development and child psychology is given in a summary of the essential facts of biology and heredity. The instincts are discussed under the caption, "Non-learned Human Behavior." Then follow discussions of "The

¹ C. W. WADDLE, *Introduction to Child Psychology*. Riverside Text-books in Education. Boston: Houghton, Mifflin Co. Pp. xvii+317. \$1.50.

Play of Children" and "Linguistic Development." The practical and more concrete phases of school work are more directly dealt with in such chapters as those on "Children's Drawings," "The Moral Nature of Children," and "Juvenile Delinquency." The latter part of the book will have more immediate interest to the teacher because of its discussion of the facts and principles concerning the mental development of children.

The bibliography is detailed, but not classified or annotated. It is questionable whether the book properly recognizes the limited extent to which teachers have had contact with the materials discussed. The phraseology is somewhat technical; for that reason the book will be a difficult one for some teachers to read. The book may be regarded as a helpful summary of the best that the child study movement has contributed to our present knowledge of child psychology and as a good introduction to the literature of each phase of the subject.

A text-book and manual on school hygiene.—During the past five years a number of text-books have appeared dealing with special aspects of school health. More recently the tendency has been to bring together large bodies of material in general text-books and manuals for teachers, superintendents, and students of education. *Healthful Schools*¹ is the latest and one of the most useful of this latter type. It is a combination text-book and handbook for students, administrators, and teachers, dealing with all the physical conditions essential to healthful schools.

Its chief characteristics are as follows: First, it is informational. It aims to summarize for the reader the best modern thought and practice with respect to choosing the school's site, planning and operating school buildings, the distribution of rooms, the selection of classroom equipment, the planning of conditions with respect to natural and artificial lighting, the water supply, heat, and ventilation, protecting school houses from fire, keeping the school house clean, problems of medical inspection, physical training and recreation, exceptional children, and school feeding.

Secondly, it is thoroughly scientific. Each discussion is based on the best scientific results of investigation which the writers are able to get together. It is a compilation and careful organization of studies made by various investigating bodies—commissions, boards, and individuals. In discussing the problems of school house lighting, heating, or ventilation, the results of scientific investigation as well as the consensus of authoritative judgments are summarized for the reader. The book reviews enough of

¹ MAY AYRES, J. F. WILLIAMS, and T. D. Wood, *Healthful Schools*. Riverside Textbooks in Education. Boston: Houghton, Mifflin Co. Pp. xii+292. \$1.50.

the historical setting of the topics treated to give the reader a background for the understanding of each problem.

Thirdly, it is usable. It is a manual of practice. It tells the administrator how to do thus-and-so and how to get in touch with the best experimentation and judgment on the subject. The book contains very well selected and annotated bibliographies covering each topic and should put the reader in touch with the best literature on the respective problems.

A text-book on the teeth for elementary-school children.—Very striking improvements are being made in the teaching of hygiene in the elementary school. A most interesting contribution to one special aspect of health instruction in public schools is that represented by Dr. Ferguson's new book on the teeth¹. It is intended for grades three and four. It is written with a view to arousing a desire in children to take care of their teeth. It also shows them how to do it. The style of the writer and the typography of the printer co-operate to arouse the attention and to reach the understanding of small children. The illustrations, which are drawn by the author, are important aids in teaching the lessons. Some are humorous presentations of facts that every child should know regarding the teeth. They all contribute directions of the proper care of the teeth or warnings against their neglect. The review editor has no hesitation in urging the consideration of this book by teachers and administrators in the elementary schools.

A new child's encyclopedia.—There is a growing tendency to use in recitations not a single text, but a number of books from which material is drawn. Supplementary readers are becoming common in every line. In keeping with this general tendency is the appearance of children's encyclopedias. Such a series of volumes constitutes a kind of universal supplementary reader. The pupil discovers that he can look up information on any topic which comes up in any of his classes.

*The World Book*² is described by its authors as an American book. Its articles are written by American authors and are adapted to the use of schools in this country. Its style is adapted to the use of children from the fourth grade on. There is a so-called Service Bulletin which the publishers distribute to owners of the book. This calls attention periodically to the current interests which can be more intelligently dealt with through readings supplied by the encyclopedia.

¹ H. W. FERGUSON, *A Child's Book of the Teeth*. Yonkers, N. Y.: World Book Company. Pp. 63. \$0.44.

² *The World Book*, edited by M. V. O'SHEA. Chicago: Hanson-Roach-Fowler Co. Eight volumes.

The book seems to be complete in its list of topics. These are drawn from the various fields of knowledge covered in the elementary school and to some extent those taken up in the high school. The science articles seem to be especially good.

A handbook on teaching how to study.—Superintendent Zimmers has described the method¹ by which he induced his teachers to transform their recitations. At the beginning of the experiment the teachers were using most of the time of the recitation, were asking questions which called only for the reproduction of statements learned by heart out of the book. After two years the pupils were occupying ninety per cent of the time and the questions were thought-provoking. The pupils had learned to organize their ideas.

The method of bringing about this result is described. Teachers' meetings based on readings are described in full. The book will be of value to superintendents and principals as a guide in effective supervision of teachers. Teachers will gain many suggestions by reading it.

An introductory discussion of school problems for teachers and prospective teachers.—It is very common practice to introduce students in normal schools and colleges to the study of education by giving them courses in the history of education or in general psychology. The discussions of such courses touch only in the most remote way the classroom problems of the teacher and the administrative problems of present-day schools. The result has been a decided inability on the part of the young teacher to apply his or her training to the teaching tasks.

More recently there has been a demand in our schools of education that we introduce prospective teachers to the problems of education by an elementary discussion of the "problems" themselves. It has been difficult in the past to organize courses along these lines, because no text-book of this sort has been available. Mr. Judd's new book², therefore, will provide a distinct impetus to the movement for a new type of elementary course for teachers in training.

The book aims first to extend the pupils' view of the school. It shows the conservatism of laymen toward school practice and by simple examples suggests the new developments in educational practice that exhibit the way in which the scientific movement is helping to develop better schools. Certain types of history of education come in naturally in giving the students

¹ P. J. ZIMMERS, *Teaching Boys and Girls How to Study*. Madison, Wis.: Parker Educational Co. Pp. 55. \$0.50.

² C. H. JUDD, *Introduction to the Scientific Study of Education*. Boston: Ginn and Company. Pp. xii+333. \$1.50.

a sketch of the way in which schools of this country and of other countries developed, how the high school started and flourished, how the present organization of the elementary school was obtained from Prussia, and how it has been reorganized in the past few years. In early chapters there are discussions of the problems of compulsory attendance, of the cost of educating the individual, and of school finance, of the organization of the board of education and its relation to the teacher. Following these come concrete discussions of simple facts that a good teacher must know about the school building, wise and unwise methods of grouping pupils in classes and of promoting pupils through the school. A clear discussion is given of the curriculum and its reorganization, the tendencies in the direction of specialized educational courses, and the extension of school activities in developing the relation between the school and the community.

Psychology is drawn upon for discussions of individual differences. In this as in other sections conclusions are always based upon concrete educational examples and not on abstract psychological speculations. The movement to standardize procedure and measure results is discussed. Then follow presentations of the problems and methods of teaching, of the management of the class, of the construction of school programs and the improvement of the marking system, of the supervision of health activities, and of scientific supervision. The book closes with a chapter on the training of the teacher.

Not only students in normal schools and colleges, but also the new teacher struggling with school problems for the first time will find in this book a simple and clearly written discussion of the important problems with which he or she will come in contact.

*A new edition of public school methods*¹.—About two years ago there appeared a series of volumes dealing with methods, materials, and devices in the field of elementary education. The general name under which these volumes appeared was *Public School Methods*. The success of the first edition encouraged the company to bring out a second in which is incorporated much additional material. This new edition contains seven volumes, six devoted to the teaching of elementary-school subjects and one containing a guide and index for the teacher's use.

To give anything like a definite idea of the kind of material found in the six main volumes, it is necessary to enumerate briefly the contents of each. Volume one is devoted to kindergarten, primary reading, primary language, story-telling, dramatization, games, songs, and construction work. In volume two nature-study, number, drawing, picture-study, spelling, and

¹ *Public School Methods*. Chicago: School Methods Company, 1918. Seven volumes.

penmanship are discussed. Volume three contains material on primary geography, primary history, sanitation and hygiene, physiology, physical exercises, music, special day programs for primary grades, school and environment, school house and grounds, organization and management, and character-building. In volumes four and five are found discussions of reading, language, and grammar, geography, elementary science, arithmetic, history, civil government, handcraft, and special day programs for intermediate grades. Such subjects as agriculture, construction work, spelling, penmanship, drawing, picture-study and domestic science as they relate to the upper grades are treated in volume six. In this volume is also found material relative to psychology, adolescence, and principles and methods of teaching. The general plan followed in most cases in dealing with an individual subject is first to present the work to be done in some detail, in some cases week by week or month by month. Then follow questions and plans, the whole including a great deal of concrete material. It should be added in concluding this paragraph that the last volume is more than a mere index. It contains excellent material on vocational guidance, the use of the dictionary, community centers, thrift, and personal and community hygiene.

The authority and practical value of the work are vouchsafed by the fact that the editorial staff is made up of specialists, among whom are Professors Bagley, Hosic, C. A. McMurry, Hodge, Patty S. Hill, Katharine Martin, Frank E. Thompson, and Henry Turner Bailey, as well as Commissioner Claxton, Superintendent Evans, and Director E. F. Worst. The mere mentioning of these well known names should make the prospective purchaser of the set feel that the material can be relied upon and that it is entirely up to date.

The volumes should be helpful to the normal school graduate, who is often accused of being impractical before she has had time to orient herself in actual teaching. Such a collection of materials would save her much work and worry. The work should also prove of great value to the teacher who graduated from normal school several years ago, since in the various volumes she will find the most recent and most successful methods discussed by practical specialists. While the volumes will be of great service to both recent and remote graduates of normal schools, they will probably be of greater service to the thousands of teachers who have never found time for continued special training. Such teachers will find in the various volumes well recognized methods of teaching as well as material relative to management, organization, and principles of teaching, all of which is comprehensive, practical, and authoritative.

Two recent texts in the field of elementary American history.—Wholesome tendencies in text-books in history for grammar grades and junior high schools are embodied in two books which appeared during the early summer¹. Both of these books contain much material not found in the traditional texts in this field. For example, one finds chapters on Big Business (1890-1916); The People's Life (1900-1916); Business and Labor (1869-1890); The Industrial Revolution; The Development of Popular Education during the First Half of the Nineteenth Century; The Triumph of Industry; Immigration; Combinations of Capital and of Labor; Advances in Popular Education; and the Great War.

In the matter of organization and pedagogical aids the books follow about the same plan. Chapters are of co-ordinate rank; there is no attempt to give large divisions and group chapters under them, as is done in other texts in the same field. Under pedagogical aids are included questions and exercises, problems for further study and references. There are occasional lists of important dates and outlines for review. The references in the Hart are old, most of them having attained their majority. In this particular feature the Beard and Bagley seems superior. On the whole, the books are on a level as to general merits. They contain much new material. The language in the Beard and Bagley will probably give seventh-grade students considerable trouble. The illustrations are also very poorly done.

¹ C. A. BEARD AND W. C. BAGLEY, *The History of the American People*. New York: The Macmillan Company, 1918; and A. B. HART, *School History of the United States*. New York: American Book Company, 1918.

II. CURRENT PUBLICATIONS RECEIVED IN MAY, JUNE, AND JULY, 1918

A. GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

BEELEY, ARTHUR L. *An Experimental Study in Left-Handedness*. University of Chicago Press. Chicago. 1918. Paper. Pp. 74. \$0.50 net.

GOOD, HARRY G. *Benjamin Rush and His Services to American Education*. Witness Press, Berne, Ind. 1918. Pp. 283. \$1.60.

JUDD, CHARLES HUBBARD. *The Evolution of a Democratic School System*. Houghton, Mifflin Company. 1918. Pp. viii and 119.

JUDD, CHARLES HUBBARD. *Introduction to the Scientific Study of Education*. Ginn and Co. 1918. Pp. xii and 333.

JUDD, CHARLES HUBBARD. *Reading: Its Nature and Development.* University of Chicago Press, Chicago. 1918. Paper. Pp. xiv and 192. \$1.00 net.

ROBBINS, CHARLES L. *The School as a Social Institution.* Allyn and Bacon. 1918. Pp. xxv and 470.

WADDLE, CHARLES W. *An Introduction to Child Psychology.* Houghton, Mifflin Co. 1918. Pp. xi and 317. \$1.50 net.

B. BOOKS FOR ELEMENTARY GRADE TEACHERS AND PUPILS

BACHMAN, FRANK P. *Great Inventors and Their Inventions.* American Book Co. 1918. Pp. 272.

BAKER, FRANKLIN T. and THORNDIKE, ASHLEY H. *Everyday Classics.* Seventh and Eighth Readers. Macmillan Co. 1918. Pp. Seventh, 424; Eighth, 415. Each, \$0.75.

BAILEY, CAROLYN SHERWIN. *Tell Me Another Story.* Milton Bradley Co., Springfield, Mass. 1918. Pp. xii and 335. \$1.50.

DICKINSON, MAY BLISS. *Children Well and Happy.* 1918. LeRoy Phillips, Boston. Pp. xi and 115. \$0.60.

HAMILTON, SAMUEL. *Standard Arithmetic.* Books I, II, and III. American Book Co. 1917. Pp. xvi and 256, xx and 300, xxii and 374.

HART, ALBERT BUSHNELL. *School History of the United States.* American Book Co. 1918. Pp. 505 and xxxiv.

HAWKES, LUBY, TOUTON. *Second Course in Algebra.* Revised Edition, Boston. Ginn and Co. 1918. Pp. vii and 277. \$1.00.

HERVEY, WALTER L. and HIX, MELVIN. *The Horace Mann Readers.* Eighth Reader. Longmans, Green and Co. New York. 1918. Pp. viii and 488. \$0.80.

KILPATRICK, VAN EVRIE. *The Child's Food Garden.* World Book Co. Yonkers-on-Hudson, N. Y. 1918. Pp. 64.

LUCIA, ROSE. *Peter and Polly in Autumn.* American Book Co. 1918. Pp. 176.

Public School Methods. New Edition in Seven Vols. The Methods Co., Chicago. 1918.

SMITH, GEORGE J. *Longmans' English Lessons.* Third and Fourth Years. Longmans, Green and Co. New York. 1918. Pp. Third, 58; Fourth, 106.

STRASBURGER, AMELIA, and CHANKIN, JOSEPH. *Systematic Drill in Arithmetic.* Books I and II. Longmans, Green and Co. New York. 1917. Book I and II. Pp. v and 122, x and 180.

TRAFTON, GILBERT H. *The Teaching of Science in the Elementary School.* Houghton, Mifflin Co. 1918. Pp. x and 288. \$1.30.

TAYLOR, DAVID G. *The Melodic Method in School Music.* Macmillan Co. 1918. Pp. xi and 171. \$1.00.

C. MISCELLANEOUS MATERIAL

ASH, SHOLOM, *The God of Vengeance.* Stratford Co. Boston. 1918. Pp. 99. \$1.00.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. Publication No. 15. *The Imperial Japanese Mission.* 1917. Washington, D. C. 1918. Pp. 125.

THE GENERAL EDUCATION BOARD. *Report of the Secretary.* 1916-17. The General Education Board, 61 Broadway. New York. Pp. 92.

MYRON, PAUL. *Bugle Rhymes from France.* Mid-Nation Publishers. Chicago. 1918. Pp. 138.

OTIS, EDWARD O. *Tuberculosis: Its Cause, Cure, and Prevention.* Thomas Y. Crowell Co. New York. 1918. Pp. xix and 328.

DEPARTMENT OF EDUCATION, CITY OF NEW YORK. *Annual Report of the Supervisor of Lectures to the Board of Education.* 1916-17. Pp. 105.

A Bulletin of Information Concerning the Public Schools of Richmond, Ind. Ballinger Press. Richmond, Ind. 1917. Pp. 70.

SCHULTZ, JAMES WILLARD. *Bird Woman.* Houghton, Mifflin Co. Pp. 235. \$1.50.

The Post Mark Collection Book of the U. S. of A. Brother Cushman, The Corners, Montclair, N. J. 1916. \$1.00.

Publications of the YERKES OBSERVATORY:

HALE, GEORGE E. and ELLERMAN, FERDINAND. *The Rumford Spectroheliograph of the Y. Observatory.* Vol. III. Part I. 1903.

HALE, GEORGE and KENT, NORTON A. *The Spectrum of the High Potential Discharge Between Metallic Electrodes in Liquids and in Gases at High Pressures.* Volume III, Part II. 1907.

SLOCUM and OTHERS. *Stellar Parallaxes Derived from Photographs Made with the Forty-Inch Refractor.* Vol. IV, Part I. University of Chicago Press. Chicago.